

CLAIMS

What is claimed is:

- 1 1. A method for providing users associated with an organization access to documents
2 that belong to a set of documents, comprising the steps of:
3 storing hierarchy data that identifies
4 a set of nodes that correspond to ORG-UNITS associated with the
5 organization; and
6 hierarchical relationships between said nodes that reflect hierarchical
7 relationships between the ORG-UNITS that correspond to said nodes;
8 establishing a first mapping between the users and the set of nodes based on the
9 ORG-UNITS to which the users belong;
10 establishing a second mapping between the documents in said set of documents and
11 the set of nodes; and
12 determining which documents in said set of documents a user is allowed to access
13 based on the hierarchy data, the first mapping and the second mapping.
- 1 2. The method of Claim 1 wherein the step of determining includes
2 determining that the user may access only a subset of documents in said
3 set of documents, wherein said subset includes only documents that
4 either:
5 map to a node to which the user maps; or
6 map to a node that, according to said hierarchical relationships, resides below a node
7 to which the user maps.

- 1 3. The method of Claim 2 further comprising the step of allowing the user to access the
2 subset of documents without conveying to said user any information about documents
3 in said set of documents that are not in said subset.
- 1 4. The method of Claim 1 further comprising the step of automatically synchronizing
2 the hierarchy data based on a new set of hierarchy information.
- 1 5. The method of Claim 4 wherein the step of automatically synchronizing includes the
2 steps of:
3 inserting nodes that appear in the new set of hierarchy information but not in the
4 hierarchy data into the hierarchy data;
5 moving nodes that have new positions in the new set of hierarchy information to new
6 positions in the hierarchy data; and
7 deleting nodes that appear in the hierarchy data but not in the new set of hierarchy
8 information.
- 1 6. The method of Claim 5 wherein the step of inserting is performed before the step of
2 moving, and the step of moving is performed before the step of deleting.
- 1 7. The method of Claim 5 wherein the step of inserting involves traversing the hierarchy
2 represented by the new hierarchy information.
- 1 8. The method of Claim 7 wherein the step of traversing is performed using a transversal
2 technique that ensures parent nodes are processed before their children nodes.
- 1 9. The method of Claim 8 wherein the step of traversing is performed using a left-most
2 tree transversal.

- 1 10. The method of Claim 1 wherein the step of determining which documents said user is
2 allowed to access is performed in response to a request received by a web server over
3 a network from a browser on a client being used by said user.
- 1 11. The method of Claim 1 further comprising the steps of:
2 storing said set of documents in a repository accessible to said server; and
3 providing from said repository to said user over said network one or more documents
4 that said user is allowed to access.
- 1 12. The method of Claim 11 further comprising the step of implementing said repository
2 in a relational database system.
- 1 13. A computer-readable medium carrying instructions for providing users associated
2 with an organization access to documents that belong to a set of documents, the
3 instructions including instructions for performing the steps of:
4 storing hierarchy data that identifies
5 a set of nodes that correspond to ORG-UNITS associated with the
6 organization; and
7 hierarchical relationships between said nodes that reflect hierarchical
8 relationships between the ORG-UNITS that correspond to said nodes;
9 establishing a first mapping between the users and the set of nodes based on the
10 ORG-UNITS to which the users belong;
11 establishing a second mapping between the documents in said set of documents and
12 the set of nodes; and
13 determining which documents in said set of documents a user is allowed to access
14 based on the hierarchy data, the first mapping and the second mapping.

1 14. The computer-readable medium of Claim 13 wherein the step of
2 determining includes determining that the user may access only a subset
3 of documents in said set of documents, wherein said subset includes
4 only documents that either:
5 map to a node to which the user maps; or
6 map to a node that, according to said hierarchical relationships, resides below a node
7 to which the user maps.

1 15. The computer-readable medium of Claim 14 further comprising instructions for
2 performing the step of allowing the user to access the subset of documents without
3 conveying to said user any information about documents in said set of documents that
4 are not in said subset.

1 16. The computer-readable medium of Claim 13 further comprising instructions for
2 performing the step of automatically synchronizing the hierarchy data based on a
3 new set of hierarchy information.

1 17. The computer-readable medium of Claim 16 wherein the step of automatically
2 synchronizing includes the steps of:
3 inserting nodes that appear in the new set of hierarchy information but not in the
4 hierarchy data into the hierarchy data;
5 moving nodes that have new positions in the new set of hierarchy information to new
6 positions in the hierarchy data; and
7 deleting nodes that appear in the hierarchy data but not in the new set of hierarchy
8 information.

1 18. The computer-readable medium of Claim 17 wherein the step of inserting is
2 performed before the step of moving, and the step of moving is performed before the
3 step of deleting.

1 19. The computer-readable medium of Claim 17 wherein the step of inserting involves
2 traversing the hierarchy represented by the new hierarchy information.

1 20. The computer-readable medium of Claim 19 wherein the step of traversing is
2 performed using a transversal technique that ensures parent nodes are processed
3 before their children nodes.

1 21. The computer-readable medium of Claim 20 wherein the step of traversing is
2 performed using a left-most tree transversal.

1 22. The computer-readable medium of Claim 13 wherein the step of determining which
2 documents said user is allowed to access is performed in response to a request
3 received by a web server over a network from a browser on a client being used by
4 said user.

1 23. The computer-readable medium of Claim 13 further comprising instructions for
2 performing the steps of:
3 storing said set of documents in a repository accessible to said server; and
4 providing from said repository to said user over said network one or more documents
5 that said user is allowed to access.

1 24. The computer-readable medium of Claim 23 further comprising instructions for
2 performing the step of implementing said repository in a relational database system.